Migration to SAP S/4HANA

Pre-Conversion

These checks will help to find out what mandatory steps we must carry out before converting S/4HANA system. The checks are divided into category such as –

- System Requirement
- Maintenance Planner
- SI-Check
- Custom-code analysis

System Requirement

We need to evaluate system and check out its compatibility regarding OS, DB and Stack (Single/Dual) etc.

- Unicode is needed, due to technical restriction with S/4 kernel. If legacy system is not Unicode, then at first place perform Unicode conversion
- Dual stacks are not supported on SAP HANA. So, perform dual-stack split, if required
- ECC system should be >= 6.0.
- Check minimum required version of DB/OS for conversion into S/4HANA

In tcode **SE38**, check that program **/SDF/HDB_SIZING** is available and you can even run it for test now.

Please use below for troubleshooting if you run into issues. The same program runs later on when scheduling analysis and the job **RC_COLLECT_ANALYSIS_DATA** is run as per STEP 13.

Analysed database	Symptom	Solution
Sybase ASE	Termination with message "SQL ERROR:[ASE Error SQL208:42000][SAP][ASE ODBC Driver][Ada" in the job log or as a pop-up.	SAP Note 2212071
MSSQL	Statistics (record count) collected are obviously incorrect.	SAP Note 1691513
MSSQL	Table analysis fails with message 'sap_get_table_size_info' or runtime is too high	SAP Note 2446530 and 2241493
DB2	Many tables could not be sized and are logged as error. All those tables are tables of type POOL.	Check FAQ document attached to SAP Note 1872170
any	Report terminates with IMPORT_ALIGNMENT_MISMATCH or CONNE_IMPORT_WRONG_COMP_TYPE.	SAP Note 2486479
any	Report terminates with MESSAGE_TYPE_X.	Check FAQ document attached to SAP Note 1872170
any	Report terminates with GETWA_NOT_ASSIGNED in CL_ADK_CCMS_GET_OBJECTS.	SAP Note 2000157
any	Version 64 terminates with CONVT_NO_NUMBER.	Latest sizing report Note
HANA (S/4)	Report terminates with TSV_TNEW_PAGE_ALLOC or any other ABAP memory related error.	Latest sizing report Note + Exclude empty tables

Using the Maintenance Planner for a System Conversion Stack

Custom Code Migration

Stage 1 - Starting SUM

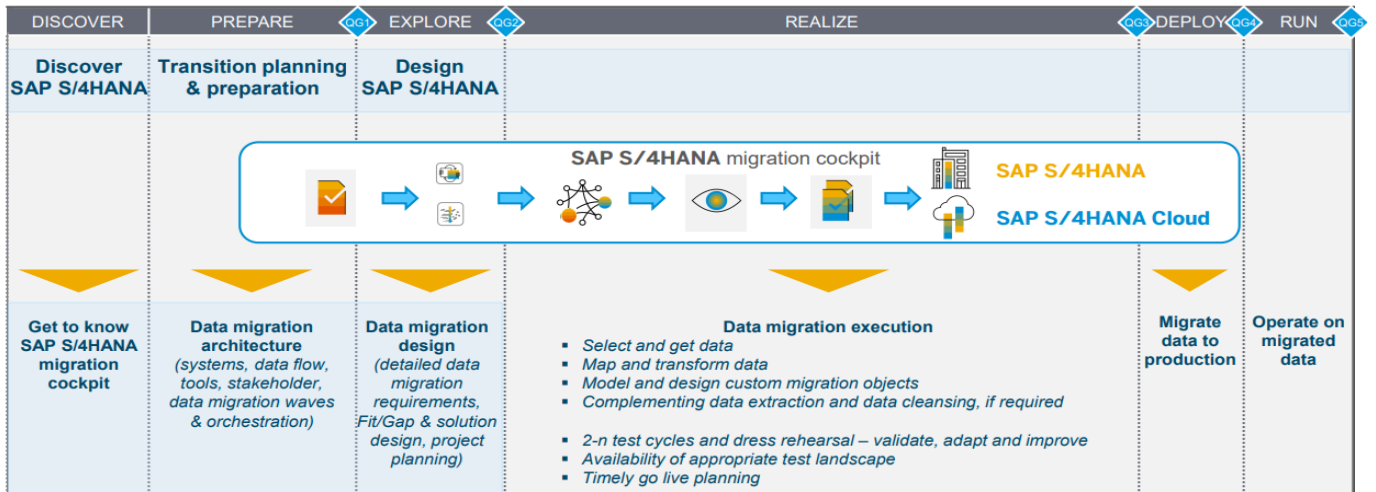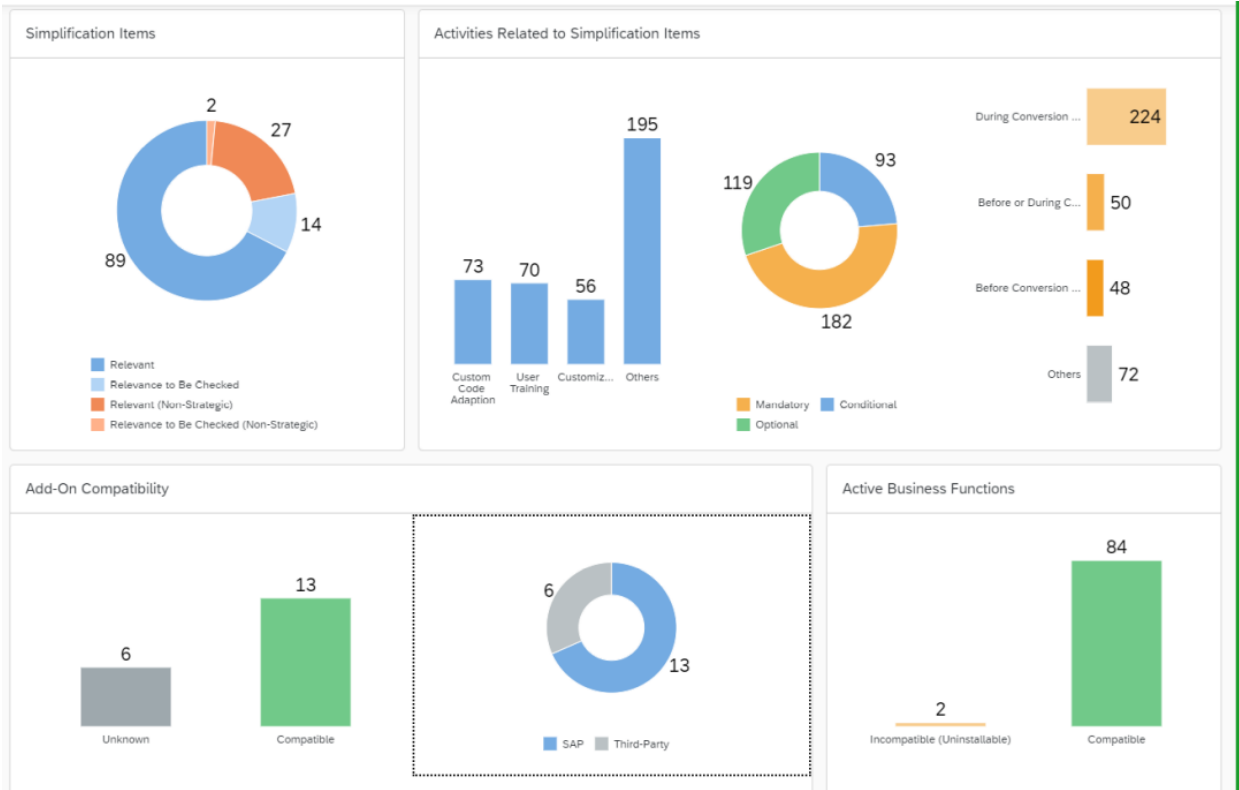## Stage 2 - Setting HANA Parameters in SUM

Stage 3 - Source System Downtime

Stage 4 - Monitoring the Migration Cockpit

Stage 5 - Monitoring SAP HANA Studio
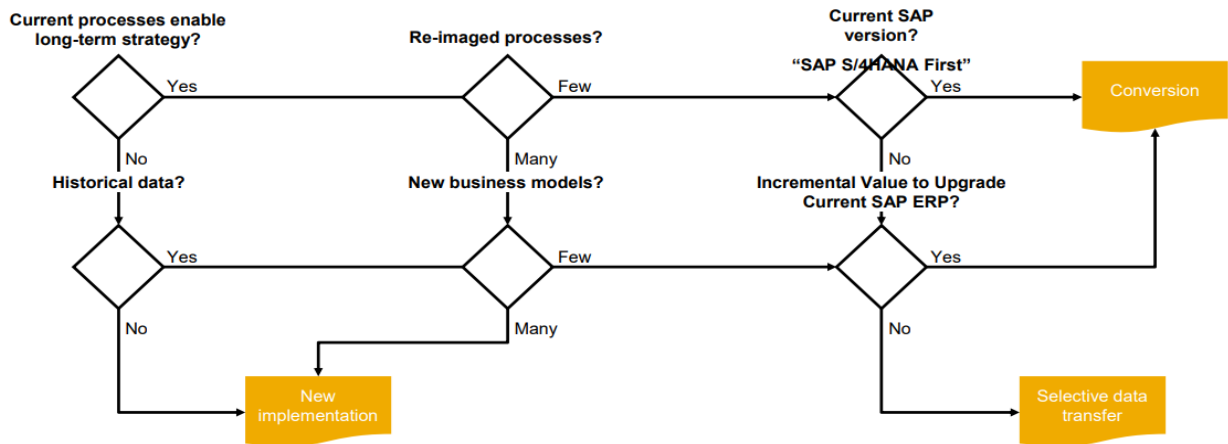
Stage 6 - Checking the table ACDOCA

Stage 7 - Examining Fiori Apps after the Conversion

Simplification Items

- 2
- 27
- 14
- 89

Legend:
- Relevant
- Relevance to Be Checked
- Relevant (Non-Strategic)
- Relevance to Be Checked (Non-Strategic)

Activities Related to Simplification Items

- Custom Code Adaption: 73
- User Training: 70
- Customiz...: 56
- Others: 195

Donut chart:
- 93
- 119
- 182

Legend:
- Mandatory
- Conditional
- Optional

Bar chart:
- During Conversion ...: 224
- Before or During C...: 50
- Before Conversion ...: 48
- Others: 72

Add-On Compatibility

- Unknown: 6
- Compatible: 13

Donut chart:
- 6
- 13

Legend:
- SAP
- Third-Party

Active Business Functions

- Incompatible (Uninstallable): 2
- Compatible: 84

DISCOVER	PREPARE	QG1	EXPLORE	QG2	REALIZE	QG3	DEPLOY	QG4	RUN	QG5

Discover SAP S/4HANA | Transition planning & preparation | Design SAP S/4HANA

SAP S/4HANA migration cockpit

SAP S/4HANA
SAP S/4HANA Cloud

Get to know SAP S/4HANA migration cockpit

Data migration architecture
(systems, data flow, tools, stakeholder, data migration waves & orchestration)

Data migration design
(detailed data migration requirements, Fit/Gap & solution design, project planning)

Data migration execution
- Select and get data
- Map and transform data
- Model and design custom migration objects
- Complementing data extraction and data cleansing, if required

- 2-n test cycles and dress rehearsal – validate, adapt and improve
- Availability of appropriate test landscape
- Timely go live planning

Migrate data to production

Operate on migrated data

Project lead*	System administrator / Basis lead*	Data migration expert	Application / business contacts
■ Drives the data migration project at customer side ■ Responsible for all aspects affecting project setup and project planning ■ …	■ Drives software download, software installation, installation of notes, system settings, etc. ■ Responsible to fulfill technical prerequisites such as provision of test landscape, RFC connections, system access & authorizations etc. ■ …	■ Uses the SAP S/4HANA migration cockpit and complementing tools (if any) ■ Responsible to execute data migration and track progress ■ …	■ Act as key contacts for all application-related questions and represent business departments ■ Clarify business requirements, e.g. define selection criteria and mappings ■ Conduct functional testing and validate migration result ■ …

Decision path to S/4HANA
Influencing factors

Introduction to data migration
Three transition scenarios

REUSE by in-place conversion

System Conversion → Start Rapid Modernization → SAP S/4HANA

Customer-tailored

REENGENEERING with data migration

Selective Data Transition → Selective Business Process Optimization → SAP S/4HANA

New Implementation → Business Model Innovation → SAP S/4HANA Cloud / SAP S/4HANA

Highly standardized fueled with best practices & based on a clean core

Your way to SAP S/4HANA (1/2)

System Conversion

SAP ERP system → SAP S/4HANA

Bring your business processes to the new platform
- A complete technical in-place conversion of an existing SAP ERP system to SAP S/4HANA
- Adopt new innovations at your speed
→ Delivery model: included in SAP S/4HANA shipment

Selective Data Transition

SAP ERP system(s) → SAP S/4HANA

Partly re-use, partly re-implementation
- Covers the migration of relevant business data from SAP ERP to SAP S/4HANA
- Allows to combine redesign of business processes with retaining historical data
- Realized by a combination of standard functions used for a new implementation or system conversion together with complementing expert functions which are not released to general availability
→ Delivery model: as a service / consulting project

New Implementation

SAP ERP or third party system(s) → SAP S/4HANA / SAP S/4HANA Cloud

New implementation / re-implementation
- Reengineering and process simplification based on latest innovations
- Highly standardized, fueled with best practices & based on a clean core
- Implement innovative business processes with preconfigured best practice content on an innovative platform
- Migrate your master data & retire old landscape
→ Delivery model: included in SAP S/4HANA shipment

Your way to SAP S/4HANA (2/2)

SAP S/4HANA migration cockpit

- Part of SAP S/4HANA and SAP S/4HANA Cloud (included in these licenses)
- Supports customers with the "New Implementation" scenario
- SAP's recommended approach for the migration of business data to SAP S/4HANA and SAP S/4HANA Cloud

New Implementation

SAP ERP or Third Party System(s)

SAP S/4HANA

SAP S/4HANA Cloud

New implementation / re-implementation
- Reengineering and process simplification based on latest innovations
- Highly standardized, fueled with best practices & based on a clean core
- Implement innovative business processes with preconfigured best practice content on an innovative platform
- Migrate your master data & retire old landscape
→ Delivery model: included in SAP S/4HANA shipment

SAP S/4HANA migration cockpit at a glance
Data migration to SAP S/4HANA: easy, safe, and accelerated

Key facilitators

- Out-of-the-box
- Available for SAP S/4HANA and SAP S/4HANA Cloud, included in licenses
- Preconfigured migration objects
- No developer skills required
- Step-by-step guidance through the migration process
- Preconfigured migration objects and rules
- Automatized cross-object value mapping

Migration object modeler for custom requirements

Powerful and easy-to-use state-of-the-art modeling environment (SAP S/4HANA only)

Data migration process for new implementation

Data migration
- This is one key task during the transition to SAP S/4HANA
- Make sure to understand your requirements early and plan for them accordingly

Select migration objects → Get data → Map & transform data
Model & design to reflect custom requirements * → Simulate → Migrate → SAP S/4HANA / SAP S/4HANA Cloud

SAP Business Suite / Legacy

*Migration object modeler available for on-premise only
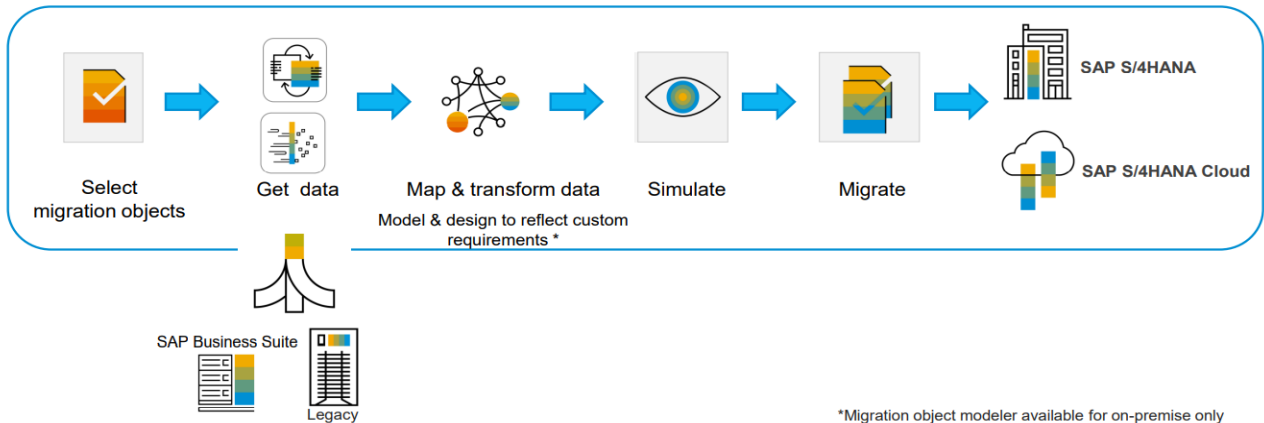
SAP S/4HANA migration cockpit
Migration approaches until 1909 - recap

Transfer data using files
- Download template file for relevant migration object
- Populate file with relevant business data
- Upload file to the SAP S/4HANA migration cockpit

Transfer data using Staging Tables
- Staging Tables are created automatically (in an SAP HANA DB schema)
- Populate Staging Tables with business data
- Transfer data from Staging Tables to target SAP S/4HANA system

Transfer data directly from SAP System (new with SAP S/4HANA 1909)
- Transfer data from SAP ERP source system to target SAP S/4HANA system
- Access source system via RFC connection
- Supports data migration scenarios from other applications
  e.g. from SAP Apparel and Footwear (SAP AFS) to SAP S/4 Fashion and Vertical Business, SAP Extended Warehouse Management (SAP EWM) to Decentralized EWM

SAP S/4HANA migration cockpit – migration approaches

Transfer data using files
- Download template file for relevant migration object
- Populate file with relevant business data
- Upload file to the SAP S/4HANA migration cockpit

+

Transfer data using Staging Tables
- Staging Tables are created automatically (in an SAP HANA DB schema)
- Populate Staging Tables with business data
- Transfer data from Staging Tables to target SAP S/4HANA system

=

New in OP2020

Migrate data using Staging Tables
- Staging Tables are created automatically (either locally or in a remote system)
- Populate Staging Tables with business data
  - ✓ Using XML template files is one possibility to populate Staging Tables
  - ✓ Using SAP or third-party ETL tools is another possibility to populate Staging Tables
- Transfer data from Staging Tables to target SAP S/4HANA System

SAP S/4HANA migration cockpit – benefits for combined approach

- Improved user experience
- Mix file and staging possibilities in one approach (= one project)
- Easier way to populate Staging Tables
- Instance-based status tracking and messages
- Improved capability of downloading & uploading mapping values

- All data is stored in Staging Tables
- Use either local SAP S/4HANA DB (local connection) or remote SAP HANA DB connection
- Delivered XML template files ease population of Staging Tables
- Still other tools (external or SAP) can be used for populating Staging Tables

- State-of-the-art user experience with Fiori UI
- Faster UI response time
- Processing of multiple objects at once possible
- Progress tracking during simulation / migration

SAP S/4HANA migration cockpit
Migration approaches from 2020 onwards

Migrate data using Staging Tables

- Staging Tables are created automatically (either locally or in a remote system)
- Populate Staging Tables with business data
  - ✓ Using XML template files is one possibility to populate Staging Tables
  - ✓ Using SAP or third-party ETL tools is another possibility to populate Staging Tables
- Transfer data from Staging Tables to target SAP S/4HANA System

Migrate data directly from SAP system

- Transfer data from SAP ERP source system to target SAP S/4HANA system
- Access source system via RFC connection
- Supports data migration scenarios from other applications
  e.g. from SAP Apparel and Footwear (SAP AFS) to SAP S/4 Fashion and Vertical Business, SAP Extended Warehouse Management (SAP EWM) to Decentralized EWM

SAP S/4HANA migration cockpit – migrate data using Staging Tables

Fiori App
Migrate Your Data

Process & content

Data load

API based

Migrate Your Data
Migration Cockpit

6

Active Migration Proj...

Staging Tables

Excel XML template files
or other tools of choice

SAP S/4HANA OP 2020:

+115

Migration objects

SAP S/4HANA Cloud

SAP S/4HANA EX 2102*
SAP S/4HANA OP 2020

*Current state of planning

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Process flow

- **Select Migration Objects**
  The system automatically creates the staging tables for each object.
- **Prepare the Staging Tables**
  Prepare the staging tables so data can be transferred.
- **Simulate the Migration**
  Call the function module in test mode to check whether there are any issues.
- **Transfer Data to Staging Tables**
  Use the provided template files or your preferred tools.
- **Process Mapping Tasks**
  Ensure that the source data is mapped correctly.
- **Migrate Data**
  Data from the staging tables will be posted to the target SAP S/4HANA Cloud system.

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Create new project I

The Fiori App includes now both migration approaches. Choose your migration approach.

There are two options to transferring data to S/4HANA:
- Migrate data directly from SAP system
- Migrate data using Staging Tables

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Create new project II

Specify details for your migration project.

Local SAP S/4HANA database
- System will generate Staging Tables in the internal schema of the SAP S/4HANA system
- Use this option if you only want to use XML template files to fill the Staging Tables with data

Remote SAP HANA database
- System will generate Staging Tables in a remote SAP HANA DB Schema
- Prerequisite: valid database connection (please refer to KBA 2733253)
- Select this option if you want to fill the staging table with data by using your preferred tools

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SAP S/4HANA migration cockpit – migrate data using Staging Tables
Create new project – choose migration objects

The migration cockpit delivers a larger quantity of migration objects depending on the selected migration scenario.

Select migration objects - click on button ＞

To continue with next step click on "Review" Review

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Create new project – confirm

The migration cockpit creates the project with your selected migration objects.

1. General Data

Name:	New Migration Project
Mass Transfer ID:	OLU
Migration Approach:	Migrate Data Using Staging Tables
Scenario:	Default Scenario
Database Connection:	Local SAP S/4HANA Database Schema

Edit

2. Migration Objects

Edit

Name	Predecessor	Documentation
Product	2	Documentation
Product - extend existing record by new org levels	3	Documentation
Product consumption	1	Documentation

Confirm your data selection by choosing the *Create Project* button. **Create Project**

Create Project | Cancel

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Migration project screen – more buttons

On the **migration project** screen, you trigger all the steps that are required to transfer the data for each migration object to the target SAP S/4HANA system. In addition you can quick access additional information and tasks.

New Migration Project | Running Activiti... 0   Monitoring | Mapping Tasks | Job Management | Settings | Finish Project

Migration Approach: Migrate Data Using Staging Tables   Mass Transfer ID: OLU   Database Connection: Local

Show All ▾

Migration Object	Data	M
Product	Tables: 16	O
	Instances: 0	D
Product - extend existing record by new org levels ☑ 1 Predecessor Objects	Tables: 16 Instances: 0	O D
Product consumption 1 Predecessor Objects	Tables: 3 Instances: 0	Open: 0 Done: 0

Buttons for quick access:
- **Monitoring** – to view a log of all activities
- **Mapping tasks** – all mapping tasks for your project
- **Job management** – adjust number of background jobs
- **Settings** – general settings e.g. add new migration objects
- **Finish project**

See more details in application help.

Errors: 0	Errors: 0	
Successful: 0	Successful: 0	Migration Not Started
	Not Started: 0	Upload File

SAP S/4HANA migration cockpit –migrate data using Staging Tables
Trigger actions via drop down list

The migration cockpit guides you through the various steps of the data migration. You can also flexibly choose which steps you want to do next (select, mapping tasks, simulate, migrate).

The system proposes the next action to be performed. For example "Upload File" - here, you start the action for **one object only**.

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Migration project screen – object documentation

On the **migration object** screen, you get detailed information about a migration object.

To display the documentation for a migration object select the link "here".

This will directly forward you to the migration object documentation on help.sap.com (Application Help).

The migration cockpit provides XML template files for all delivered migration objects.
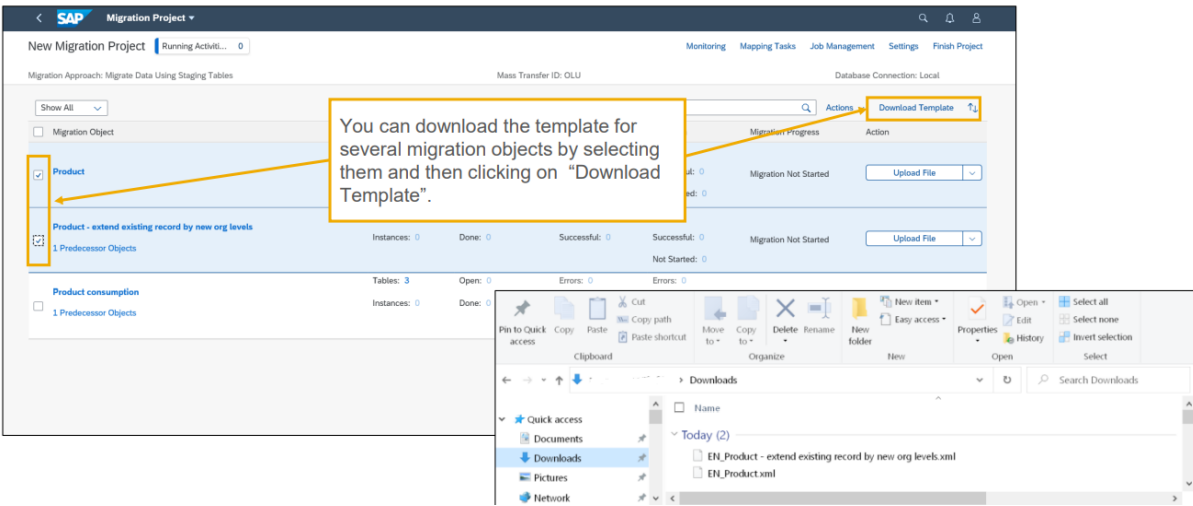
SAP S/4HANA migration cockpit – migrate data using Staging Tables
Populate the XML template file with data

In the XML template files please check introduction worksheet to gain information on how to fill the template.
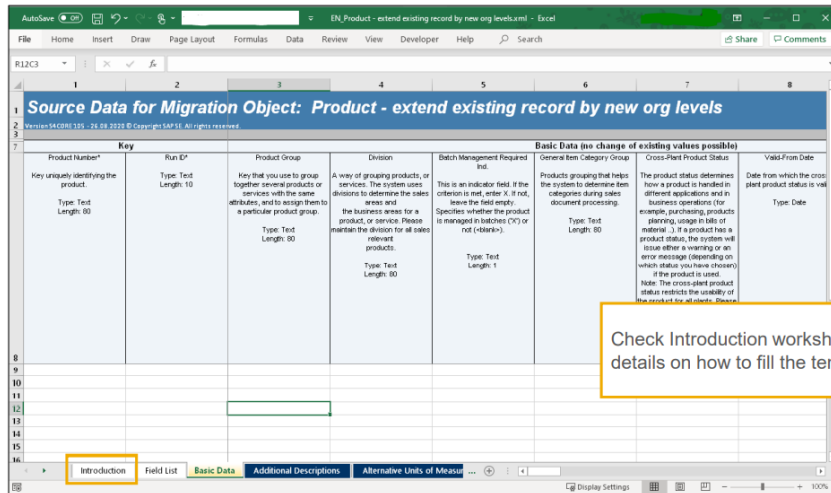
SAP S/4HANA migration cockpit – migrate data using Staging Tables
Viewing migration object instances

The migration cockpit provides details on the records for each migration object instance.

By clicking on the migration object instances you can view the records for each migration object instance

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Mapping tasks - specify mapping values

On the **Mapping Tasks** screen, you can view all the mapping tasks, you can maintain the value mapping and you can confirm them.

You can specify value mapping and transform values from the source system to target system.

Search help for target values provides existing values in the SAP S/4HANA target system.

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Download mapping XML templates

On the **Mapping Tasks** screen, you can download empty templates or download / upload mapping values.

Download mapping template files are available for each mapping task.

Select mapping task – click "Download Mapping Template".

You can use this template files instead of specifying the values manually. If files are filled, you can upload the values by clicking on "Upload Values".

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Populate XML mapping template file with data

Enter your mappings in the downloaded template.

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Instance based messaging

On the **Migration Object Instances** screen, you can view all messages related to one migration object.

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Job management - improving performance

On the **Migration Project** screen, use the button Job Management to adjust job settings.

Adjust the maximum number of background jobs used for your project.

You can also adjust the maximum number of jobs to be used per migration object.

SAP S/4HANA migration cockpit - transfer data using Staging Tables

System setup SAP S/4HANA Local SAP S/4HANA Database Schema

New in OP2020

SAP S/4HANA

SAP S/4HANA migration cockpit

Staging table 1 | Staging table 2 | Staging table n

1 Select **Local SAP S/4HANA Database Schema*** for your migration project

3 Fill Staging Tables with Excel-templates

2 Staging table creation for selected migration object

4 Read access

6 Status update of record

Application interface

5 Insert / update via API

Legacy system

Application data

Data Source(s)

Application tables

* Staging Tables reside within the SAP S/4HANA schema

SAP S/4HANA migration cockpit - transfer data using Staging Tables

System setup SAP S/4HANA Remote SAP HANA Database Schema

SAP S/4HANA or separate SAP HANA box*

ODBC

SAP S/4HANA

Staging table 1 | Staging table 2 | ... | Staging table 3

SAP HANA DB schema*

2 Staging table creation for selected migration object

4 Read access

6 Status update of record

SAP S/4HANA migration cockpit

1 Select **Remote SAP HANA Database Schema*** for your migration project

3 Extraction and fill of Staging Tables via SAP or third-party-tools

Legacy system

Application data

Data Source(s)

Application interface

5 Insert / update via API

Application tables

* Separate SAP HANA database schema is required, can also be on SAP S/4HANA target system
** Prerequisite: established secondary database connection

SAP S/4HANA migration cockpit - migrate data using Staging Tables
Key takeaways – news in 2020

1. One harmonized user experience using Fiori UI for all approaches

2. Processing of multiple objects at once possible

3. Instance-based status tracking and messages

4. Progress tracking during simulation / migration

5. Mapping upload/download in Fiori app – templates or with populated values

6. Projects created using transaction LTMC (WebDynpro) cannot be converted to new SAPUI Fiori app but will be available as read-only from 2021 onwards for on-premise.

SAP S/4HANA migration cockpit – migrate data using Staging Tables
Migration object modeler

⚙ Flexible and extendable

- Copy migration objects
- Adjust standard migration objects (e.g. add fields)
- Add customer tables or fields to a standard migration object or to a new migration object
- Export / import a project from one system to another system
- Simulate / debug import of data from Staging Tables
- Create user defined migration objects
- Use standard APIs or code your function module
- Create or edit translation objects and rules
- Use project in a different client

Transaction: LTMOM
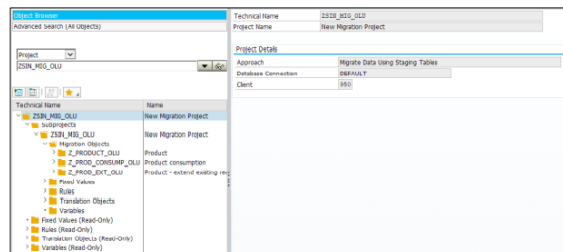
SAP S/4HANA migration cockpit – migrate data using Staging Tables
Export / import projects

Before SAP S/4HANA 2020: You export / import projects using transaction LTMC.

As of SAP S/4HANA 2020 and for projects created with the Fiori App: You export / import projects using transaction LTMOM (migration object modeler).

SAP S/4HANA 2020 – migration object modeler
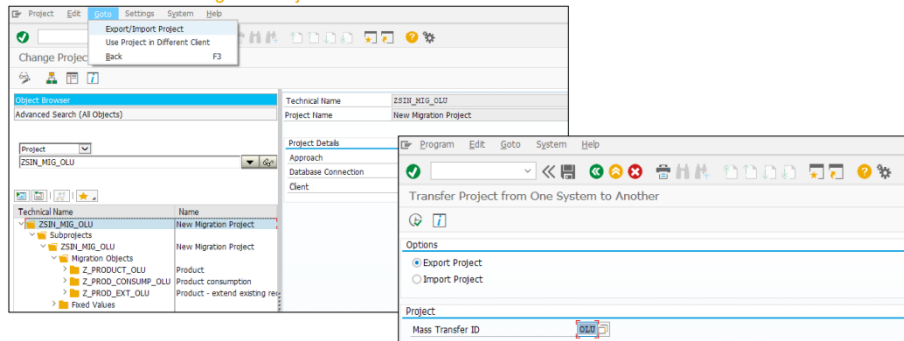
SAP S/4HANA migration cockpit – XML template

⚙ Important information

- Enter legacy data in generated XML file template for the selected migration object
- Default size limit for each uploaded XML or ZIP file is 100 MB
- The knowledge base article KBA 2719524 contains further information about increasing file size limits for SAP S/4HANA and zipping files for SAP S/4HANA Cloud and SAP S/4HANA

⚙ Recommendations

- Read introduction and check field list before starting filling the template
- Unhide and read the tooltips (line 8)
- Copy and paste values only using the following options:
    - Paste option then Values (V) - within XML file
    - Paste special and then choose Text - from somewhere else
    - Paste option then keep text only - from notepad/text editor

Migration file template for Bank

SAP S/4HANA migration cockpit Migrate data directly from SAP system

SAP S/4HANA migration cockpit – migrate data directly from SAP system

Fiori App
Migrate your data

Migrate Your Data
Migration Cockpit

6

Active Migration Proj...

SAP business suite

Process & content

Data load

API based
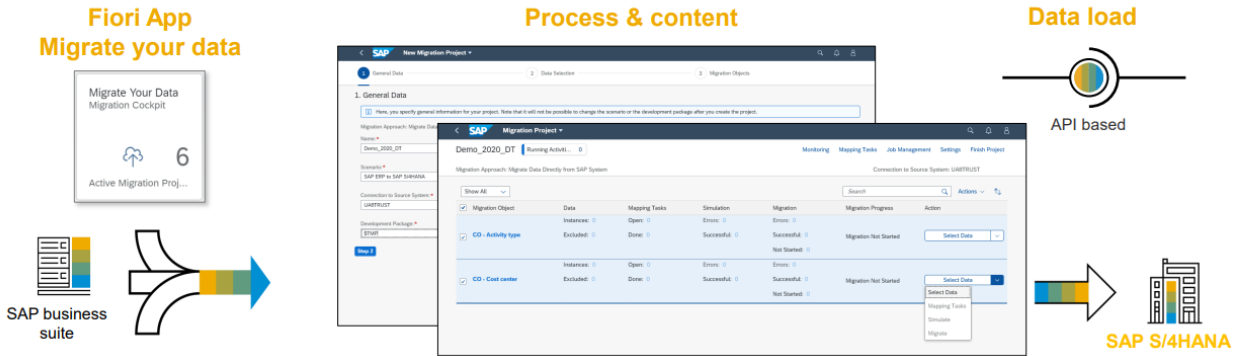
SAP S/4HANA

SAP S/4HANA2020: **+140** Migration objects

Available for:
- SAP ERP 6.0 to SAP S/4HANA
- SAP Apparel and Footwear Solution (SAP AFS) 6.0 to SAP S/4HANA
- SAP Extended Warehouse Management to Decentralized EWM based on SAP S/4HANA
- SAP CRM to SAP S/4HANA for customer management

Predefined selection criteria is depending on migration scenario.

SAP S/4HANA migration cockpit
Migrate data directly from SAP source system

Source system
ABAP-based SAP System

Connect to source system using RFC connection

Migration cockpit accesses the relevant source system tables based on the specified migration objects

SAP S/4HANA

Access migration cockpit in SAP S/4HANA

Identify migration objects relevant for project

Transfer data directly from source system to SAP S/4HANA
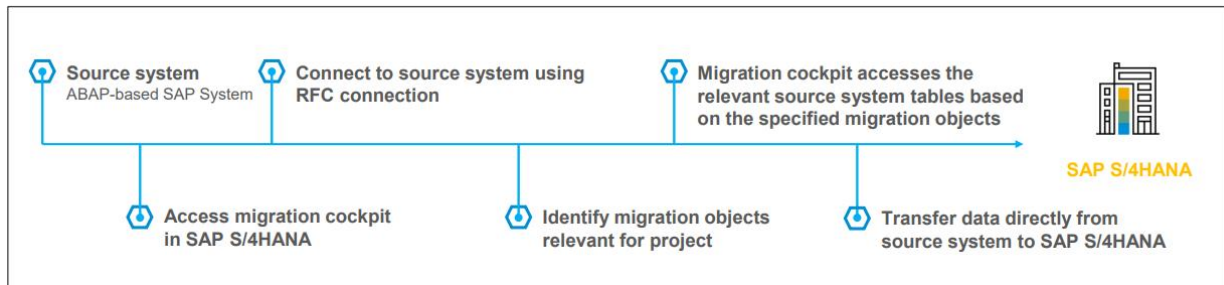
- Suitable for ABAP-based SAP source systems only
- Four migration scenarios supported
  - SAP ERP to SAP S/4HANA
  - SAP Apparel and Footwear to SAP S/4HANA
  - SAP EWM to decentralized EWM based on SAP S/4HANA
  - SAP CRM to SAP S/4HANA for customer management (SAP S/4HANA 1909 FPS01 onwards)

SAP S/4HANA migration cockpit – Direct Transfer

Start the App
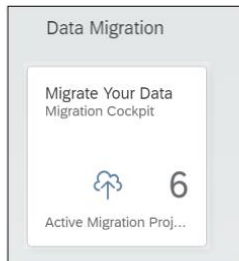
Start the "Migrate Your Data" App

Data Migration

Migrate Your Data
Migration Cockpit

6

Active Migration Proj...

- The SAP S/4HANA migration cockpit facilitates the transfer of business data from an SAP source system to SAP S/4HANA.
- The SAP S/4HANA migration cockpit is designed for an initial load of data, specifically for the SAP S/4HANA new implementation scenario. It is not designed to keep data in sync between systems, to realize a continuous exchange or flow of data, or to establish an integration scenario.
- SAP S/4HANA systems are currently not supported as source systems.

SAP S/4HANA migration cockpit – Direct Transfer

Create new migration project - general data

Selection of relevant scenario:

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA
SAP CRM to SAP S/4HANA Service
SAP ERP to SAP S/4HANA
SAP EWM to Decentralized EWM based on SAP S/4HANA

Enter the relevant RFC connection to the SAP Source System.

Enter a development package, so that you can transport your project to another system.
Note: If you enter $TMP you will not be able to add your project to a transport request, this means, the project is only locally available in the client and system, where you created the project.

SAP S/4HANA migration cockpit – Direct Transfer
Create new migration project - data selection

The migration cockpit delivers preconfigured data selection criteria depending on the migration scenario.

Preconfigured data selection based on key organization units, depending on migration scenario, e.g. company codes for SAP ERP to SAP S/4HANA

SAP S/4HANA migration cockpit – Direct Transfer
Create new migration project - migration objects

The migration cockpit delivers a larger quantity of migration objects depending on the selected migration scenario.

Mark the relevant migration objects and add them to your project.

Preconfigured migration content:
List of available migration objects relevant for the selected scenario (e.g. SAP ERP to SAP S/4HANA).

SAP S/4HANA migration cockpit – Direct Transfer
Create new migration project - confirm

The migration cockpit delivers a larger quantity of migration objects depending on the selected migration scenario.

Confirm your data selection by choosing the *Create Project* button.

SAP S/4HANA migration cockpit – Direct Transfer
Migration process

The migration cockpit guides you through the various steps of the data migration. You can also flexibly choose which steps you want to do next (select, mapping tasks, simulate, migrate).

You can execute actions for **several or all** migration objects in your project.

The system proposes "Select Data" as the next action. You can start the selection for **one object only.**

SAP S/4HANA migration cockpit – Direct Transfer
Migration object screen - overview

On the **Migration Object** screen, you get detailed information about a migration object.

To get detailed information about a migration object, click the migration object name in the **migration object** column.

You find a direct link to the migration object documentation in the SAP Help Portal.

The system displays the **migration object** screen, where you can view the following information:
- Link to SAP Help Portal Documentation
- Table structure
- History of events, including logs
- Dependencies to other migration objects
- Technical information (relevant for support)

SAP S/4HANA migration cockpit – Direct Transfer
Migration object screen – table structure and history

On the **Migration Object** screen, you get information on the table structure and the history.

In the *Table Structures* section, you see the relevant source system tables for the migration object. The system displays the source system tables in a hierarchy.

In the *History* section you see the different actions for the migration object. You can also view the log for each action regarding this object.

SAP S/4HANA migration cockpit – Direct Transfer
Selection/reselection of data

If you have already selected data and choose the selection button again, you have the possibility to reselect the data.

Reselection of data

- add new data from the source system to already selected data (available since SAP S/4HANA 1909 – default behavior)

- delete former selection and select completely new (available as of SAP S/4HANA 2020)

Data Already Selected

⚠ Data has already been selected for this migration object. You can either delete all selected data (except for data that has already been migrated) and start a completely new selection, or you can add additional instances to the existing selected data.

General Data
Connection to Source System: ▆▆▆▆
Data Selection
Company Code:

| 0001 |

[New Selection] [Add Additional Instances] Cancel

ℹ If you work with SAP S/4HANA 1909, you can use the report mentioned in the following SAP Note 2857598 to delete the former selection and repeat the selection of data.

SAP S/4HANA migration cockpit – Direct Transfer
Maintain value mapping

On the **Mapping Tasks** screen, you can view all the mapping tasks, you can maintain the value mapping and you can confirm them.

Search help provides existing values in the SAP S/4HANA target system.

You can specify value mappings and transform values from the source system to the target system.

ℹ The mapping tasks will be filled with values only after the system has selected the data from the source system. Without selection, the mapping tasks will be empty.

SAP S/4HANA migration cockpit – Direct Transfer
Mapping upload download

On the **Mapping Tasks** screen, you can download empty templates or download / upload mapping values.

You can download empty mapping templates to fill them.

You can download the automatically filled value mappings.

When you upload the mapping values, you have different options:
- Confirm values automatically
- Do not confirm values automatically
- Replace existing values
- Modify values / Add values

Note that the files may contain target values that were created automatically (e.g. internal numbering). Ensure that you adjust the target values (or remove them completely in the files) before uploading the file to another system.

SAP S/4HANA migration cockpit – Direct Transfer
Migration object instances list

On the **Migration Object Instances** screen, you can view the records for each migration object instance.

The system offers various possibilities to search and filter the list.

Use the gear wheel to select the columns to be displayed.

Click the arrow to view the migration object instance details.

SAP S/4HANA migration cockpit – Direct Transfer
Single instance processing – only Direct Transfer

On the **Migration Object Instances** list you can simulate, migrate or exclude single instances or have a look at the error messages.

To exclude a single instance, mark the entry, and press the *Exclude* button.

On the migration project screen, you will now find one excluded item. The number of items to be migrated (not started) has changed from "32" to "31".

SAP S/4HANA migration cockpit – Direct Transfer
Mass processing - only Direct Transfer

On the **Migration Object Instances** list you can exclude, undo exclude, simulate and migrate instances in a mass processing.

You can filter a subset of instances and execute one of the following action:
- Exclude
- Undo exclude
- Simulate
- Migrate

SAP S/4HANA migration cockpit – Direct Transfer
Simulation / migration

On the **Migration Project** screen, you can choose, which items you want to simulate / migrate.
Example migration: migrate single items (on the migration object screen), migrate random 10% or random 500 items, migrate only instances with errors, migrate all successfully simulated instances or migrate all instances.

You can simulate/migrate **several migration objects** at once
- Simulation: selecting all instances or all instances with errors
- Migration: selecting all instances, the ones with errors or all successfully simulated instances

You can simulate/migrate **only one migration** object and choose different options.

SAP S/4HANA migration cockpit – Direct Transfer
Migration project screen – more buttons

On the **Migration Project** screen, you trigger all the steps that are required to transfer the data for each migration object to the target SAP S/4HANA system. In addition you can quick access additional information and tasks.

Buttons for quick access:
- **Monitoring** – to view a log of all activities
- **Mapping tasks** – all mapping tasks for your project
- **Job management** – adjust number of background jobs
- **Settings** – general settings e.g. add new migration objects
- **Finish project**

See more details in application help.

SAP S/4HANA migration cockpit – Direct Transfer
Monitoring

On the **monitoring** screen, you can view the active and completed activities.

The system offers various possibilities to search and filter the list.

You can view the downloaded files (e.g. downloaded mapping values.)

You can have a look at the messages for a single activity.

SAP S/4HANA migration cockpit – Direct Transfer
Technical preconditions

Technical preconditions

- SAP ERP to SAP S/4HANA, the lowest supported ERP release is ERP 6.0 (SAP NetWeaver 7.0),
- SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA, the supported release is AFS 6.0,
- SAP EWM to decentralized EWM, the lowest supported EWM release is EWM 5.1 (SAP NetWeaver 7.0).
- SAP CRM to SAP S/4HANA for customer management, lowest supported release is SAP CRM 7.0

Necessary preparations in the system landscape

- The add-on DMIS_2011 SP19 or higher needs to be installed in the source system (included in the license for SAP S/4HANA 2020)
- RFC connection from ERP/AFS/EWM/CRM source to SAP S/4HANA target system
- Setup FIORI
- Apply necessary notes: start with Composite SAP Note 2747566
- Check customizing: relevant customizing in the target must be available (for example, organizational units, define document type for migration, define accounts for migration, remove account blocks)
- Ensure availability of required authorizations

SAP S/4HANA migration cockpit – Direct Transfer
Process-related preparations

Define a mapping strategy between SAP source and SAP S/4HANA target

- Standard APIs are used to load the data into SAP S/4HANA target system
- Where configuration in the source deviates from the configuration in the target, adequate mappings have to be defined upfront, such as rename of organizational units, cost centers, document types, ….
- In case of questions carefully check the object-related documentation

Test and productive migration

- First create a project in a development system and then transport the project to a test system, which is a copy of the production system.
- The more the data in the test system resembles the data in the production system, the more precise the test.
- Several test data migrations are required before you transfer data to the SAP S/4HANA production system.
- For each new test data migration, you transport a migration project that includes any corrections or refinements.
- You transport your project from the development system to your productive system once the tests have been executed successfully
- Mapping value download and upload
  - You can download mapping values of your previous test and upload them into your new project. Note, that you might need to adapt the mapping values before you upload them to the new system e.g. so that you do not upload value mapping from internal numbering.

SAP S/4HANA migration cockpit – Direct Transfer
Migration object modeler

⚙ Flexible and extendable

Transaction: LTMOM

- Create user defined migration objects using a wizard
- Add customer tables or fields to a standard migration object or to a new migration object
- Add or change selection criteria of standard migration objects or user defined migration objects
- Possibility to add projects, migration objects, and rules (mapping tasks) to a transport request
- Debug the transformation and/or the posting process
- Use standard APIs or code your function module
- Copy migration objects
- Create or edit transformation rules
- Mapping download and upload
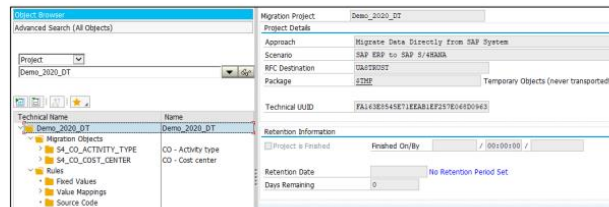
SAP S/4HANA migration cockpit - Migrate data directly from SAP system – migration scenarios

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA
SAP S/4HANA migration cockpit - migrate data directly from SAP system

Migrate data directly from SAP System

Selection of data from SAP source system via RFC

Data Selection based on company code

79+
79 Pre-defined AFS specific migration objects are supported

Capability to derive complex selection criteria automatically from company code

AFS standalone system*

S/4HANA with fashion module integrated

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA
SAP S/4HANA migration cockpit – create new migration project

< SAP New Migration Project ▾

1 General Data   2 Data Selection

1. General Data

Here, you specify general information for your project. Note that it will not be possible to change the scenario or the development package after you create the project.

Migration Approach: Migrate Data Directly from SAP System

Name: *
New Migration Project AFS

Scenario: *
SAP Apparel and Footwear (SAP AFS) to SAP S/4[

- SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA
- SAP CRM to SAP S/4HANA Service
- SAP ERP to SAP S/4HANA
- SAP EWM to Decentralized EWM based on SAP S/4HANA

Select your scenario:
SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA

Connection to Source System: *
LOKCLNT200

Enter a source system connection

Development Package: *
$tmp

Enter a valid development package

Step 2

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA
SAP S/4HANA migration cockpit – create new migration project

2. Data Selection

The Migration Cockpit uses organizational units such as company codes to select data from the source system. These organizational units are predefined for each scenario. For example, the scenario SAP ERP to SAP S/4HANA uses company codes to select data from the source system.

Only data that is relevant for the specified organizational units will be selected from the source system.

Company Code: *
0001 (SAP A.G.) ⊗

Step 3

> Data selection based on company code
> (depending on migration scenario)

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA
SAP S/4HANA migration cockpit – select migration objects

3. Migration Objects

In this step, you add the relevant migration objects to your project. Note that you can add additional migration objects after you create a project.

Available Migration Objects

Name	Predecessor	Documentation
AFS - Configuration class for material grid	1	Documentation
AFS - Dimensional characteristic	2	Documentation
AFS - Distribution curve	2	Documentation
AFS - Distribution curve condition	2	Documentation
AFS - Non-dimensional characteristic	2	Documentation
AFS - Planned indep. reqt at material level	1	Documentation
AFS - Planned indep. reqt at SKU level	1	Documentation
AFS - Purchase grid condition record	2	Documentation
AFS - Quantity distribution profile	1	Documentation
AFS - Sales grid condition record		Documentation
AFS - Segmentation default values		Documentation
AFS - Segmentation strategy		Documentation
AFS - Segmentation structure	1	Documentation
AFS - Value added service	1	Documentation
Bank		Documentation
Batch unique at plant level	3	Documentation
Class	2	Documentation
CO - Activity type	3	Documentation
CO - Activity type group		Documentation
CO - Business process		Documentation
CO - Business process group		Documentation

Selected Migration Object

Name	Predecessor	Documentation
AFS - Article	3	Documentation
AFS - Season	1	Documentation

> Select migration objects in scope

> Preconfigured migration content:
> List of available migration objects

Review

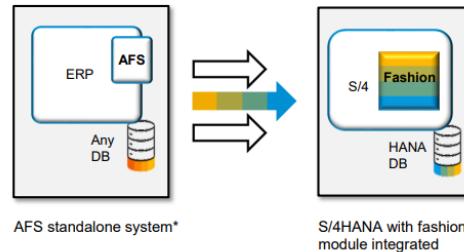# SAP EWM to decentralized EWM based on SAP S/4HANA

SAP S/4HANA migration cockpit - migrate data directly from SAP system

Migrate data directly from SAP system

Selection of data from SAP source system via RFC

Data Selection based on warehouse number

SAP Business Suite EWM*

Digital Core SAP S/4HANA

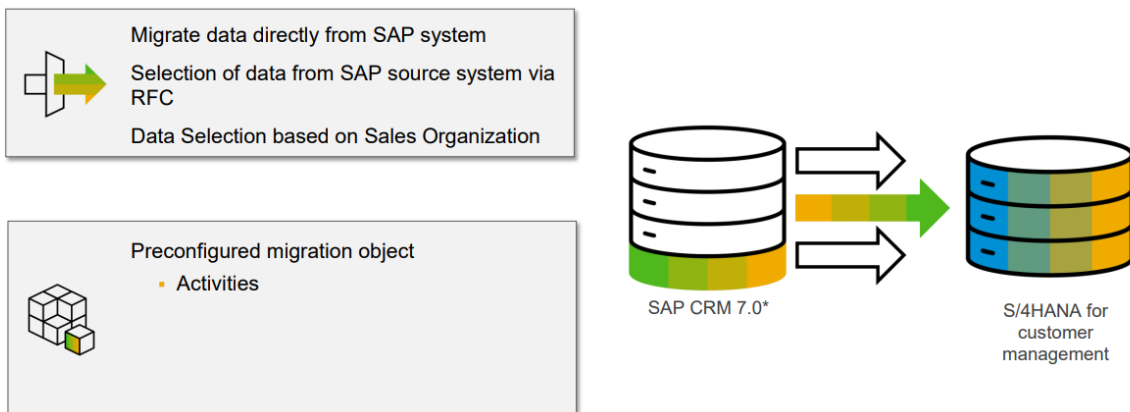Decentral EWM based on S/4HANA
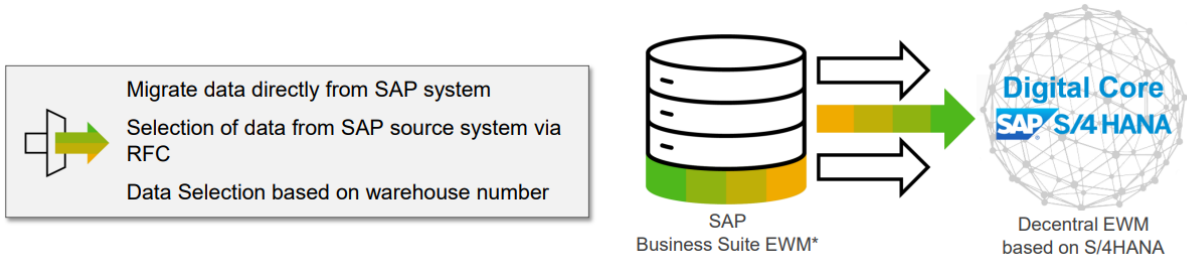
Preconfigured migration objects

- Material flow system
- Physical inventory settings
- Production supply area
- Resource and user maintenance
- Resource execution settings

- Resource group and queue settings
- Shipping and receiving settings
- Warehouse application log settings
- Warehouse fixed bin assignment log settings
- Warehouse storage bin sorting

- Warehouse product
- Warehouse stock
- Warehouse storage bin
- Workcenter dependent settings
- Workcenter determination

*Prerequisite for Migrate data directly from SAP System: DMIS installation in source

SAP CRM to SAP S/4HANA for customer management

SAP S/4HANA migration cockpit - migrate data directly from SAP system

Migrate data directly from SAP system

Selection of data from SAP source system via RFC

Data Selection based on Sales Organization

Preconfigured migration object
- Activities

SAP CRM 7.0*

S/4HANA for customer management

*Prerequisite for transfer data directly from SAP System: DMIS installation in source

SAP S/4HANA migration cockpit – comparison of migration approaches in **1909**

	Transfer data using files	**Transfer data using Staging Tables**	**Transfer data directly from SAP system**
Availability	SAP S/4HANA Cloud SAP S/4HANA	SAP S/4HANA Cloud SAP S/4HANA	SAP S/4HANA
Source system	Any source system (SAP or non-SAP)	Any source system (SAP or non-SAP)	ABAP-based SAP source systems
Data volume	Small and medium volumes of data	Large volumes of data	Any volumes of data
Data provisioning	XML template files filled by customers	Staging Tables filled by customers (using e.g. SAP Data Services, SDI, SAP HANA Studio, open SQL, or any 3rd party ETL Tools)	Data selected and extracted directly from SAP system
Data cleansing	Before starting the migration project, or in the XML template files	Before starting the migration project, or in the Staging Tables	Before starting the migration project. Note that you can always adjust the selection of data by using the migration object modeler

SAP S/4HANA migration cockpit – comparison of migration approaches in **2020**

	Migrate data using Staging Tables		**Migrate data directly from SAP system**
Availability	SAP S/4HANA Cloud	SAP S/4HANA	SAP S/4HANA
Source System	Any source system (SAP or non-SAP)		ABAP-based SAP source systems
Data Provisioning	XML template files filled by customers or via ABAP	Staging Tables filled by customers (using e.g. SAP Data Services, SDI, or any 3rd party ETL Tools)	Data selected and extracted directly from SAP system
Data cleansing	Before starting the migration project, or in the XML template files	Before starting the migration project, or in the Staging Tables	Before starting the migration project. Note that you can always adjust the selection of data by using the migration object modeler

SAP S/4HANA migration cockpit Migration objects

SAP S/4HANA migration cockpit
Preconfigured migration objects SAP S/4HANA

SAP S/4HANA migration cockpit
New migration objects "Staging" for 2020

New objects in 2020

- FI - G/L account
- FI - G/L account - extend existing record by new org levels
- SEPA mandate
- ECM - Change Master
- EFD - Reinf report
- TRM - Foreign exchange spot/forward transaction -contract
- TRM - Foreign exchange swap - contract
- TRM - Interest rate instrument
- TRM - Deposit at notice
- TRM - Commercial paper
- TRM - FX option
- TRM - Position value
- PM - Measurement document
- TRM - Foreign exchange collar - contract
- Material listing and exclusions
- EHS – Location

New objects in 2020

- JVA - Joint operation agreement
- JVA - Joint venture master data
- JVA - Joint venture partner
- JVA - Venture suspense
- JVA - Cost center suspense
- JVA - Project suspense
- JIT - Supply control
- JIT - Package group
- Product
- Product - Extend existing with new org levels
- DG - Assessment for unpackaged product (text-based)
- DG - Assessment for packaged product (text-based)
- DG - Assessment for unpackaged product (content-based)
- QM - Inspection plan
- VC - Characteristics group
- VC - Material variant

SAP S/4HANA migration cockpit
New migration objects "Direct Transfer" for 2020

New objects for ERP

- ➢ Document info record (DMS)
- ➢ EHS - Location
- ➢ EHS - Location hierarchy
- ➢ VC - Assign global dependency to characteristic
- ➢ VC - Assign global dependency to class
- ➢ VC - Interface design (characteristic group)
- ➢ VC - Variant table entry
- ➢ VC - Variant table structure
- ➢ JIT - Customer
- ➢ JVA - Joint operating agreement (step 2)
- ➢ JVA - Joint venture master (step 2)
- ➢ Product classification (legal control)
- ➢ RE-FX Business partner roles
- ➢ TRM - Deposit at notice

New objects for EWM
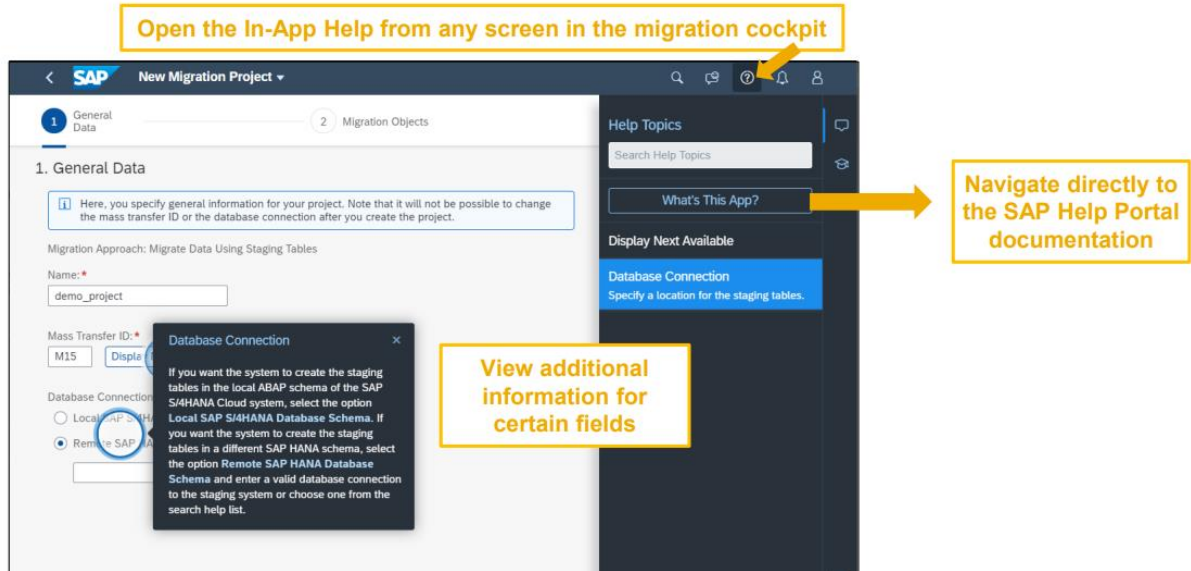
- ➢ Material flow system
- ➢ Physical inventory settings
- ➢ Production supply area
- ➢ Resource and user maintenance
- ➢ Resource execution settings
- ➢ Resource group and queue settings
- ➢ Shipping and receiving settings
- ➢ Warehouse application log settings
- ➢ Work center dependent settings
- ➢ Work center determinations

SAP S/4HANA migration cockpit – development newsletters

SAP S/4HANA migration cockpit - In-App Help now available

Open the In-App Help from any screen in the migration cockpit

Navigate directly to the SAP Help Portal documentation

View additional information for certain fields

Preconfigured SAP S/4HANA sandbox system
Demo scripts for SAP S/4HANA migration cockpit available

SAP S/4HANA trial system (external link):
https://www.sap.com/cmp/oth/crm-s4hana/s4hana-on-premise-trial.html

Product Information
Joerg Wolf
April 23, 2019   6 minute read

SAP S/4HANA Fully-Activated Appliance: Demo Guides

18 Likes   28,223 Views   23 Comments

This blog gives information on the pre-configured sample demo scenarios in the SAP S/4HANA Fully-Activated Appliance. If you stumbled across this blog "by accident" and are interested in bringing up your own preconfigured SAP S/4HANA sandbox system within a few hours, please see this overview for the SAP S/4HANA Fully-Activated Appliance.

Direct links to the most recent appliance releases in SAP CAL are:
SAP S/4HANA 1909 FPS01 / SAP S/4HANA 1909 SP00

Demo scripts for SAP S/4HANA migration cockpit

- File approach (bank)
- File approach (material) LTMOM - file approach (cost center texts)
- Staging approach (G/L accounts)
- Direct Transfer approach (cost centers and activity types)
- LTMOM – Direct Transfer approach (cost center texts)
- Direct Transfer approach (material)
- Direct Transfer approach (vendor, CVI)

https://blogs.sap.com/2019/04/23/sap-s4hana-fully-activated-appliance-demo-guides/

System access for externals
External CAL: https://cal.sap.com/catalog#/solutions/52c66f34-9174-4692-b64d-4c34b955d9bc

SAP S/4HANA migration cockpit
SAP Notes and KBAs

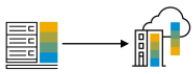| Composite SAP Note for migration cockpit CA-LT-MC	Collective SAP Note for Direct Transfer CA-LT-MC	Collective SAP Notes for File/Staging CA-GTF-MIG
2780378 **Composite SAP Note for SAP S/4HANA migration cockpit (all releases)**	**2747566** **SAP S/4HANA migration cockpit Composite Note for Transfer Data Directly from SAP System**	**2538700** **Collective SAP Note and FAQ for SAP S/4HANA migration cockpit File/Staging (Cloud)** **2537549** **Collective SAP Note and FAQ for SAP S/4HANA migration cockpit File/Staging (on premise)**
SAP S/4HANA	SAP S/4HANA	SAP S/4HANA Cloud SAP S/4HANA

Facilitate migration projects with SAP S/4HANA migration cockpit

1. Tool of choice for migration to SAP S/4HANA
- Part of SAP S/4HANA and SAP S/4HANA Cloud (included in these licenses)
- Ready-to-use solution
- Support for customers with new implementations
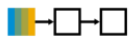
2. Preconfigured migration content specific to SAP S/4HANA
- Comprehensive set of preconfigured migration objects, such as customers, suppliers, and so on
- Automated mapping between source data and SAP S/4HANA target values

3. Integrated in SAP Activate methodology
- Proven methodology integrated in SAP Activate road map: *Transition to SAP S/4HANA*
- Best practices

4. Easy and safe migration
- Direct data transfer from SAP source systems (new with SAP S/4HANA 1909)
- Step-by-step guidance through the migration process
- Template files for each migration object
- Data validation to ensure high-data quality and consistency

5. Flexible and extendable
- Migration object modeler for custom requirements
- Ability to extend existing SAP migration objects
- Integration of custom objects

6. Outlook
- Improved functionality to plan, track and document the data migration
- Provide additional migration content
- Improve handling of error message

Key takeaways

SAP S/4HANA migration cockpit – the next-generation data migration software

- Included in SAP S/4HANA and SAP S/4HANA Cloud license and shipment
- Made for migrating data from SAP and non-SAP sources into SAP S/4HANA and SAP S/4HANA Cloud
- Guided procedure takes users through the migration process: Easy and safe, no programming required
- Flexible for integration of custom business data including data transformations

Select migration objects → Get data → Map & transform data — Model & design to reflect custom requirements * → Simulate → Migrate → SAP S/4HANA / SAP S/4HANA Cloud

SAP Business Suite / Legacy

*Migration object modeler available for on-premise only

Migration approaches
Data Transfer

- Migrate data using Staging Tables
- Migrate data directly from SAP system
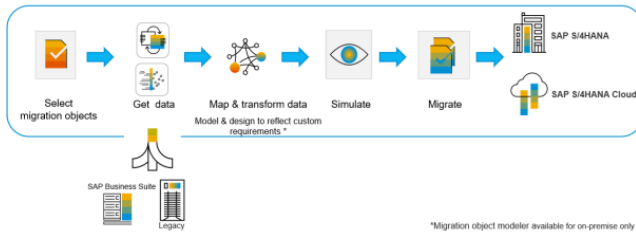
Predefined SAP S/4HANA-specific migration content
facilitates and accelerates your data migration

- Preconfigured content and mapping
- Automated mapping between template and target structure
- Migration programs generated automatically

Customer-specific migration content
can be flexibly included

- Integration of customer-built objects
- Customer-specific enhancements to SAP standard objects (for example: add new fields)

SAP tools and services

Recommended products	S/4HANA compatibility	Improvement & innovation
All SAP products	SAP ERP & S/4HANA / SAP BW & BW/4HANA	SAP ERP
SAP Transformation Navigator	SAP Readiness Check / SIC	Pathfinder — URL

Today — Adoption Starter

How can I identify benefits and track them in the future?

How do I create my detailed execution plan?

What product map does SAP recommend for me and how to I identify the value

How can I best prepare my transformation?

How can I generate immediate value in the meantime?

Tomorrow — Digital Core — URL's
- SAP methodology
- SAP best practices
- Innovation discovery

Business value	Business process improvement	Planning the digital transformation
All SAP products	SAP Business Suite	SAP S/4HANA	All SAP products
Quality value assessment	BSR report	SAP roadmaps – interactive
		SAP product roadmaps